

THE FUNCTIONS OF COMPUTER ASSISTED LANGUAGE LEARNING IN FORMATION OF  
LINGUISTIC AND COMMUNICATIVE COMPETENCES

*У статті висвітлені сучасні – біхевіористський, комунікативний та інтегрований – підходи до комп'ютеризованого навчання інішомовного спілкування (як мовної, так і мовленнєвої компетенцій) на основі виділення функцій, які бере на себе комп'ютер у навчальному процесі, а саме: наставника, стимулу і засобу. Подано характеристики сучасних комп'ютерних програм як для формування мовної (граматичної, лексичної, фонетичної) і мовленнєвої (аудіювання, читання, письмо) компетенцій з англійської мови, так і програм для подальшого вдосконалення набутих навичок і вмінь.*

This article provides a brief overview of how computers have been used and are being used for language teaching and aims to focus not on a technical description, but rather on the pedagogical questions that teachers have considered in using computers in the classroom – to develop students' linguistic and communicative competence, to stimulate students' critical thinking, imagination, creative writing. The history of CALL (computer-assisted language learning) suggests that the computer can serve a variety of uses for language teaching. It can be a **tutor** which offers language drills or skill practice; a **stimulus** for discussion and interaction; or a **tool** for writing and research. With the advent of the Internet, it can also be a medium of global communication and a source of limitless authentic materials. As the use of telecommunication technologies for teaching purposes is represented by behavioristic, communicative, integrative CALL [1;2;3;4;5], in this article we intend to analyse the functioning of computer-assisted language learning programmes for both teaching language aspects and forming communicative skills, as the effectiveness of CALL cannot reside in itself but only in how it is put to use. And the use of the computer does not constitute a method, it is a facility in which a variety of methods, approaches, and pedagogical philosophies may be implemented.

In **behavioristic** CALL the computer (as tutor) serves as a vehicle for delivering instructional materials to the student, programmes entail repetitive language drills, computer is ideal for carrying out repeated drills, since the machine does not get bored with presenting the same material and since it can provide immediate non-judgmental feedback. A computer can present such material on an individualized basis, allowing students to proceed at their own pace and freeing up class time for other activities

**Communicative** CALL focuses more on using forms rather than on the forms themselves; teaches grammar implicitly rather than explicitly; allows and encourages students to generate original utterances rather than just manipulate prefabricated language; does not judge and evaluate the students nor reward them with congratulatory messages, lights, or bells; avoids telling students they are wrong and is flexible to a variety of student responses; uses the target language exclusively and creates an environment in which using the target language feels natural, both on and off the screen; and will never try to do anything that a book can do just as well.

**Integrative** CALL is based on two important technological developments of the last decade--*multimedia* computers and *the Internet*. *Multimedia* technology allows a variety of media (text, graphics, sound, animation, and video) to be accessed on a single machine. What makes multimedia even more powerful is that it also entails hypermedia.

Hypermedia provides a number of advantages for language learning. First of all, a more authentic learning environment is created, since listening is combined with seeing, just like in the real world. Secondly, skills are easily integrated, since the variety of media make it natural to combine reading, writing, speaking and listening in a single activity. Third, students have great control over their learning, since they can not only go at their own pace but even on their own individual path, going forward and backwards to different parts of the programme, staying on particular aspects and skipping other aspects altogether. Finally, a major advantage of hypermedia is that it facilitates a principle focus on the content, without sacrificing a secondary focus on language form or learning strategies. But we should admit that today's computer programmes are not yet intelligent enough to be truly interactive. There are no programmes able to understand a user's spoken input and evaluate it not just for correctness but also for appropriateness; able to diagnose a student's problems with pronunciation, syntax, or usage and then intelligently decide among a range of options (e.g., repeating, paraphrasing, slowing down, correcting, or directing the student to background explanations). Computer programmes with that degree of intelligence do not exist, and are not expected to exist for quite a long time. Artificial intelligence of a more modest degree does exist, but few funds are available to apply research to the language classroom. Multimedia technology as it currently exists thus only partially contributes to integrative CALL. Using multimedia may involve an integration of skills (e.g., listening with reading), but it too seldom involves a more important type of integration-integrating meaningful and authentic communication into all aspects of the language learning curriculum. Fortunately, though, another technological breakthrough is helping make that possible - electronic communication and the Internet.

*The Internet*. Computer-mediated communication (CMC), is probably the single computer application to date with the greatest impact on language teaching. For the first time, language learners can communicate directly, inexpensively, and conveniently with other learners or speakers of the target language 24 hours a day, from school, work, or home. This communication can be asynchronous through tools such as electronic mail (e-mail), which allows each participant to compose messages at their time and pace, or it can be synchronous. It also allows not only one-to-one communication, but also one-to-many, allowing a teacher or student to share a message with a small group, the whole class, a part-

ner class, or an international discussion list of hundreds or thousands of people. Computer-mediated communication allows users to share not only brief messages, but also lengthy documents--thus facilitating collaborative writing. Using the World Wide Web, students can search through millions of files around the world within minutes [6;7;8].

Behavioristic, communicative, integrative CALL represent computer as a **tutor** to form *linguistic* competence:

**Grammar.** CALL Programmes designed for teaching grammar include drill and practice on a single topic (Irregular Verbs, Definite and Indefinite Articles), drills on a variety of topics (*Advanced Grammar Series, English Grammar Computerized I and II*), games (*Code Breaker, Jr. High Grade Builder*), and programmes for test preparation (*50 TOEFL SWE Grammar Tests*). Grammar units are also included in a number of comprehensive multimedia packages (*Dynamic English. Learn to Speak English Series*).

**Pronunciation.** Pronunciation programmes (*Sounds American, Conversations*) generally allow students to record and playback their own voice and compare it to a model. Several comprehensive multimedia programs (*Firsthand Access, The Lost Secret*) include similar features.

**Vocabulary.** This category includes drill and practice programs (*Synonyms*), multimedia tutorials (*English Vocabulary*), and games (*Hangman, Scrabble*). Also useful are several reference and searching tools (such as concordancers).

As for *communicative* competence, CALL may be used to form both receptive and reproductive skills:

**Listening.** This category includes programmes which are specifically designed to promote second-language listening (*Listen!*), multi-skill drill and practice programs (*TOEFL Mastery*), multimedia programs for second language learners (*Accelerated English, Rosetta Stone*), and multimedia programs for children or the general public (*Aesop's Fables, The Animals*).

**Reading.** This category includes reading programmes designed for English learners (*Reading Adventure I*) and tutorials designed for children or the general public (*MacReader, Reading Critically, Steps to Comprehension*) and games (*HangWord*). Also included are more general educational programmes which can assist reading (*Navajo Vacation, The Night Before Christmas*). Text reconstruction programmes allow students to manipulate letters, words, sentences, or paragraphs in order to put texts together. They can be used to support reading, writing, or discussion activities. Popular examples include *Eclipse, Gapmaster, Super Cloze, Text Tangles, and Double Up*.

**Writing.** Most software for supporting writing falls under the Computer as **Tool** category. Exceptions include tutorials such as *Sentence Combining, SentenceMaker, and Typing Tutor*.

The computer as **stimulus** category includes software which is used not so much as a tutorial in itself but to generate analysis, critical thinking, discussion, and writing. Of course a number of the above-mentioned programmes (e.g., *The Animals, Navajo Vacation, Night Before Christmas*) can be used as a stimulus. Especially effective for a stimulus are programmes which include simulations. Examples of this latter group include *London Adventure, Oregon Trail, SimCity, Sleuth, Crimelab, Amazon Trail, Cross Country Canada/USA, and Where in the World is Carmen Sandiego?*

The most common use of computer as **tool**, and probably the most common use overall of the computer for language learning, is word processing. High quality programmes like *Microsoft Word* can be useful for certain academic settings. Programs such as *ClarisWorks* and *MicrosoftWorks* are simpler to learn and still have useful features. *SimpleText* and *TeachText* are simpler yet and may be sufficient for many learners.

*Grammar checkers* (e.g., *Grammatik*) are designed for native speakers and they typically point to problems believed typical of native speaker writing (e.g., too much use of passives). They are usually very confusing to language learners and are not recommended for an CALL context.

*Concordancing* software searches through huge files of texts (called corpora) in order to find all the uses of a particular word (or collocation) [9;10]. While very confusing for beginners, concordancers can be a wonderful tool for advanced students of language, linguistics, or literature (*Oxford's MicroConcord*). The program includes as an optional extra several large (total 1,000,000 words) taken from British newspapers.

A number of tools exist to help students work on their *writing collaboratively* on computers linked in a local area network. The most popular among language teachers is *Daedalus Integrated Writing Environment*, which includes modules for real-time discussion, word processing, electronic mail, and brainstorming, as well as citation software and a dictionary. Other programs with some similar features are *Aspects* and *MacCollaborator*.

Not every teacher is a programmer. If the authoring programme demands too much of the teacher, it is not very likely to be widely implemented. Producing CALL materials requires in any case an extra time investment, but you can better spend the time on pedagogical issues than in trying to solve technical problems. This means that you need to know which kind of technical possibilities you have for authoring CALL materials. But, undoubtedly, one should keep in mind pedagogy first, technology second.

Firstly, it is essential when creating CALL materials, that the element which is in control at all times should be the pedagogy, which in turn is driven, naturally, by the student's learning requirements. It is all too easy to forget this and to lapse into being conditioned into what to place inside a piece of CALL material by technical considerations, and even by the limitations of the programming system being used. This is a truly fundamental question, and a problem which has remained over the years of software development. Technical dependence is all too often cited as the justification for poor methods, even where complex authoring tools have been employed.

Secondly, a potential CALL material creator should consider carefully the difference between computer interactivity and pedagogic interactivity. Computers may seem very powerful, and modern authoring systems extremely complex, but in essence all they do, with certain exceptions, is to make choices and present material. They offer many ways of achieving this interactivity, but the true creativeness must come from the pedagogic side. These are essentially questions concerning the design process, and we would emphasise that the undertaking of a sound and complete initial de-

sign document is just as important when setting out to use CALL materials as it is when designing for a high level programmer within a large and costly project.

The purpose of the CALL activity is rather to stimulate students' discussion, writing, or critical thinking, so there is no doubt that CALL research is a promising one and it goes hand in hand with teaching practice. The perspectives of CALL development are not only in authoring software but in creating technologies for its use in the classroom as well as adaptation for different age groups. Software used for these purposes include a wide variety of programmes, those who expect to get magnificent results simply from the purchase of expensive and elaborate systems will likely be disappointed. But those who put computer technology to use in the service of good pedagogy will undoubtedly find ways to enrich their educational programme and the learning opportunities of their students.

#### **LIST OF LITERATURE USED**

1. Dunkel P. Computer-Assisted Language Learning and Testing: Research Issues and Practice. - NY: Newbury House, 1991. - P.34-55.
2. Hardisty D., Windeatt S. CALL. - Oxford: Oxford University Press, 1989. - P.26-57.
3. Higgins J. Language, Learners and Computers. - London: Longman, 1995. - P.23-41.
4. Garrett N. Technology in the Service of Language Learning //Trends and Issues. Modern Language Journal. - 1991. -Vol.75(1). - P.74-101.
5. Thompson J, ParsonsJ. ReCALL Software Guide.- Hull, UK: CIT Centre for Modern Languages, University of Hull. - Vol.4. - 1995. - P.35-67.
6. Bowers R. WWW-Based Instruction for EST //English for Science and Technology: Profiles and Perspectives. -1995. - P. 5-8.
7. Rischoff B. Language Learning and Information Technology: State of the Art //CALICO Journal. - Vol.10(3).- 1993.- P. 5-17.
8. Schank R. C., Cleary C. Engines for Education. Hillsdale.- NY: Lawrence Erlbaum Associates, 1995. P.67-78.
9. Kenning M.-M., Kenning M. J. Computers and Language Learning: Current Theory and Practice. - New York: Ellis Horwood, 1990 - P.56-71.
10. Thompson J, ParsonsJ. ReCALL Software Guide.- Hull, UK: CIT Centre for Modern Languages, University of Hull. - Vol.4. - 1995. - P.35-67.

***Калинина С.С. Функции компьютеризированного обучения для формирования языковой и речевой компетенций.***

*В статье представлены современные – бихейвиористский, коммуникативный и интегрированный – подходы к компьютеризированному обучению иноязычному общению (как языковой так и речевой компетенций) на основе выделения функций, которые выполняет компьютер в учебном процессе, а именно: наставника, стимула и средства.*

***Kalinina S.S. The Functions of Computer Assisted Language Learning in Formation of Linguistic and Communicative Competences.***

*This article deals with behavioristic, communicative, integrative approaches towards computer assisted language learning in formation of linguistic and communicative competences basing on main functions of computer in the teaching process: a tutor, a stimulus, a tool.*